



Forest Insect & Disease Management

Report No. 80-3-13

Date Issued: 4/22/80

RESULTS OF ~~MISSISSIPPI~~ COOPERATIVE SOUTHERN PINE BEETLE AERIAL DETECTION SURVEY

DATES SURVEYED: 3/31-4/11/80

SURVEY CREW: USDA Forest Service: Dull, Carothers, Bassett, Wilson
Mississippi Forestry Commission: Collins, Munday, Brant,
Godbold, McLary

AREA SURVEYED: 36 counties centered around east-central Mississippi
14,517,200 acres (Figure 1)

PERCENT COVERAGE: 100%, maximum flight line
spacing 3 miles.

SURVEY OBJECTIVES

The purpose of this Cooperative Aerial Detection Survey was to determine the extent and severity of the southern pine beetle (SPB) outbreak in Mississippi.

SURVEY RESULTS

Eleven of the 36 counties surveyed are now in a SPB outbreak status (one or more multiple tree spots per thousand acres of pine host type). Figure 2 shows the outbreak area within the counties surveyed. Appendix I contains the survey results for these counties flown by USDA Forest Service, Aerial Survey Team personnel by county, spot size class, and number of trees per size class. County maps showing the locations and estimated number of trees per spot are attached.

SPB spots were found in all counties surveyed.

CONCLUSIONS

There is a severe SPB outbreak developing in east-central Mississippi. Most of the counties surveyed have sustained heavy timber mortality due to the southern pine beetle.

For any additional information, contact

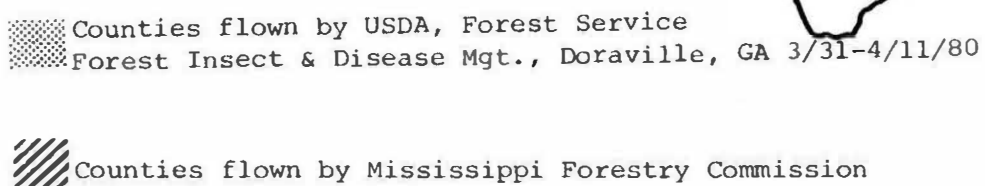
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**SOUTHEASTERN AREA, STATE & PRIVATE FORESTRY
USDA FOREST SERVICE, ATLANTA, GA 30309**

Figure 1. Mississippi Cooperative Southern Pine Beetle Aerial Detection Survey, Counties flown as of 4/11/80.



APPENDIX I. Results of a Cooperative USDA Forest Service and Mississippi Forestry Commission, Southern Pine Beetle Aerial Detection Survey, 3/31-4/11/80.

1. County: Scott

No. multiple tree spots per 1000 acres host type = 1.8

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	165	2,075
26-50	68	2,230
51-100	23	2,080
100+	<u>21</u>	<u>4,670</u>
Total	277	11,055

2. County: Copiah

No. multiple tree spots per 1000 acres host type = .07

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	9	60
26-50	3	90
51-100	2	130
100+	<u>1</u>	<u>300</u>
Total	15	580

3. County: Clay

No. multiple tree spots per 1000 acres host type = 2.6

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	36	284
26-50	4	165
51-100	2	200
100+	<u>2</u>	<u>400</u>
Total	44	1,049

4. County: Webster

No. multiple tree spots per 1000 acres host type = 0.5

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	35	393
26-50	4	200
51-100	4	500
100+	<u>2</u>	<u>350</u>
Total	45	1,443

5. County: Chickasaw

No. multiple tree spots per 1000 acres host type = 0.7

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	37	318
26-50	5	190
51-100	6	550
100+	<u>1</u>	<u>200</u>
Total	49	1,258

6. County: Itawamba

No. multiple tree spots per 1000 acres host type = 1.1

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	61	845
26-50	29	1,120
51-100	25	2,375
100+	<u>16</u>	<u>2,950</u>
Total	131	7,290

7. County: Monroe

No. multiple tree spots per 1000 acres host type = 1.8

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	73	1,052
26-50	45	1,815
51-100	25	2,400
100+	<u>15</u>	<u>5,450</u>
Total	158	10,717

8. County: Clarke

No. multiple tree spots per 1000 acres host type = 0.2

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	13	77
26-50	14	460
51-100	8	675
100+	<u>13</u>	<u>2,830</u>
Total	48	4,042

9. County: Jasper

No. multiple tree spots per 1000 acres host type = 0.4

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	35	338
26-50	18	695
51-100	9	800
100+	<u>9</u>	<u>1,895</u>
	71	3,728

10. County: Smith

No. multiple tree spots per 1000 acres host type = 0.4

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	44	507
26-50	14	550
51-100	8	725
100+	<u>4</u>	<u>600</u>
Total	70	2,382

11. County: Newton

No. multiple tree spots per 1000 acres host type = 1.2

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	105	1,025
26-50	29	1,120
51-100	7	625
100+	<u>13</u>	<u>4,280</u>
Total	154	7,050

12. County: Hinds

No. multiple tree spots per 1000 acres host type = 0.4

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	34	458
26-50	3	140
51-100	--	--
100+	<u>--</u>	<u>--</u>
Total	37	598

13. County: Simpson

No. multiple tree spots per 1000 acres host type = 0.1

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	9	124
26-50	1	50
51-100	1	75
100+	--	--
Total	<u>11</u>	<u>249</u>

14. County: Kemper

No. multiple tree spots per 1000 acres host type = 0.8

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	128	1,243
26-50	21	940
51-100	13	1,095
100+	<u>10</u>	<u>2,162</u>
Total	<u>172</u>	<u>5,440</u>

15. County: Noxubee

No. multiple tree spots per 1000 acres host type = .8

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	67	738
26-50	11	475
51-100	2	200
100+	<u>1</u>	<u>500</u>
Total	<u>81</u>	<u>1,913</u>

16. County: Lauderdale

No. multiple tree spots per 1000 acres host type = .4

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	59	459
26-50	11	430
51-100	3	300
100+	<u>4</u>	<u>1,100</u>
Total	<u>77</u>	<u>2,289</u>

17. County: Montgomery

No. multiple tree spots per 1000 acres host type = .1

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	8	46
26-50	--	--
51-100	--	--
100+	<u>1</u>	<u>150</u>
Total	9	196

18. County: Carroll

No. multiple tree spots per 1000 acres host type = 1.2

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	82	2,176
26-50	20	945
51-100	6	555
100+	<u>4</u>	<u>550</u>
Total	112	4,226

19. County: Wilkinson

No. multiple tree spots per 1000 acres host type = .2

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	32	471
26-50	1	50
51-100	--	--
100+	<u>--</u>	<u>--</u>
Total	33	521

20. County: Grenada

No. multiple tree spots per 1000 acres host type = .4

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	19	224
26-50	3	130
51-100	2	175
100+	<u>--</u>	<u>--</u>
Total	24	529

21. County: Lafayette

No. multiple tree spots per 1000 acres host type = .4

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	29	260
26-50	11	510
51-100	16	1,385
100+	7	2,800
Total	63	4,955

22. County: Franklin

No. multiple tree spots per 1000 acres host type = .1

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	24	165
26-50	3	110
51-100	1	100
100+	--	--
Total	28	375

23. County: Amite

No. multiple tree spots per 1000 acres host type = 0.1

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	6	42
26-50	3	150
51-100	--	--
100+	--	--
Total	9	192

24. County: Pontotoc

No. multiple tree spots per 1000 acres host type = 0.5

<u>Spot Size Class</u> <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	26	175
26-50	8	340
51-100	2	200
100+	3	1,000
Total	39	1,715

25. County: Calhoun

No. multiple tree spots per 1000 acres host type = 0.3

Spot Size Class <u>No. Trees</u>	<u>No. Spots</u>	<u>Estimated No. Trees</u>
1-25	22	245
26-50	7	270
51-100	5	500
100+	<u>5</u>	<u>920</u>
Total	39	1,935

COOPERATIVE MISSISSIPPI SOUTHERN
PINE BEETLE AERIAL DETECTION SURVEY

COUNTIES SURVEYED:

Amite
Calhoun
Carroll
Chickasaw
Clarke
Clay
Copiah
Franklin
Grenada
Hinds
Itawamba
Jasper
Kemper
Lafayette
Lauderdale
Monroe
Montgomery
Newton
Noxubee
Pontotoc
Scott
Simpson
Smith
Webster
Wilkinson

⊙ Spot location with estimated number of infested trees.